WHAT IS CLAIMED IS AS FOLLOWS:

1. A medical tube comprising:

a tube having a first layer and a second layer, wherein the second layer is melt-processible PTFE.

2. The medical tube of claim 1, wherein the medical tube is a catheter tube.

3. The medical tube of claim 1, wherein the first layer and the second layer are coextruded.

4. The medical tube of claim 2, wherein the first layer is a thermoplastic polymer chosen from the group consisting of fluoro copolymers, polyesters, polyamides and polyurethanes.

5. The medical tube of claim 4, wherein the thermoplastic polymer is a fluoro copolymer chosen from the group consisting of a copolymer of tetrafluoroethylene with a perfluoroalkyl vinyl ether, a copolymerization of tetrafluoroethylene and perfluoromethylvinylether and a fluorinated ethylene-propylene resin.

6. The medical tube of claim 1, wherein the melt-processible PTFE is extruded onto the first layer.

7. The medical tube of claim 1, further comprising a third layer, the third layer being melt-processible PTFE, wherein the first layer is between the second and third layers.

8. The medical tube of claim 7, wherein the three layers are co-extruded.

9. The medical tube of claim 6, the first layer having an inner and outer side, wherein the melt-processible PTFE is in contact with the inner side of the first layer.

10. The medical tube of claim 6, the first layer having an inner and outer side, wherein the melt-processible PTFE is in contact with the outer side of the first layer.

11. The medical tube of claim 1, wherein the tube is an inner catheter shaft.

12. The medical tube of claim 1, wherein the tube is an outer catheter shaft.

13. The medical tube of claim 1, wherein the tube is a catheter balloon.

14. A medical device comprising:

a guide wire, the guide wire having a layer of melt-processible PTFE.

15. The medical device of claim 14, wherein the melt-processible PTFE is extruded on the guide wire.

16. The medical device of claim 15, wherein the guide wire is a metal coil.

17. A method for making a catheter comprising the steps:

providing an inner shaft and an outer shaft, the inner and outer shafts having inner and outer surfaces;

extruding melt-processible PTFE onto the inner shaft; and

inserting the inner shaft into the outer shaft.

18. The method of claim 17, wherein the inner shaft and the PTFE are coextruded.

19. The method of claim 17, further comprising the step of inserting a guide wire into the inner shaft.

20. The method of claim 19, further comprising the step of extruding PTFE onto the guide wire.

21. The method of claim 19, further comprising the step of extruding PTFE onto the inner surface of the inner shaft.

22. The method of claim 17, further comprising the step of coextruding the outer shaft with a layer of PTFE.

23. The method of claim 17, further comprising the steps of providing a guide catheter, through which the outer shaft may pass, and extruding melt-processible PTFE onto the guide catheter.

24. The method of claim 23, wherein the guide catheter and the PTFE are coextruded.

25. A method for making a catheter balloon comprising the steps:

providing a balloon material;

extruding melt-processible PTFE onto the balloon material; and

mounting the balloon material onto a catheter.

26. The method of claim 25, wherein the balloon material and the PTFE are coextruded.

27. The method of claim 25, wherein the balloon material is PET.

28. A method of making a guide wire comprising the steps of:

providing a guide wire; and

extruding melt-processible PTFE onto the guide wire.

29. The method of claim 28, wherein the guide wire is formed via extrusion and wherein the guide wire and the PTFE are coextruded.

30. A method of making a medical device, the medical device chosen from the group consisting of biopsy forceps, medical tubes, vena cava filters, stents and pace maker leads, comprising the steps of providing the medical device and extruding melt-processible PTFE onto the medical device.

31. The method of claim 30, wherein the medical device is a stent.

32. The method of claim 31, wherein the stent is formed via extrusion and wherein the PTFE and the stent are coextruded.

33. A method for making a catheter comprising the steps:

forming a catheter shaft, wherein the catheter shaft is formed by coextruding melt-processible PTFE and a thermoplastic polymer chosen from the group consisting of fluoro copolymers, polyesters, polyamides and polyurethanes.

34. The method of claim 33, wherein the thermoplastic polymer is a fluoro copolymer chosen from the group consisting of a copolymer of tetrafluoroethylene with a perfluoroalkyl vinyl ether, a copolymerization of tetrafluoroethylene and perfluoromethylvinylether and a fluorinated ethylene-propylene resin.

35. A method for making a balloon for a catheter comprising the steps:

forming a balloon, wherein the balloon is formed by coextruding melt-processible PTFE and a thermoplastic polymer chosen from the group consisting of fluoro copolymers, polyesters, polyamides and polyurethanes.

36. The method of claim 35, wherein the thermoplastic polymer is a fluoro copolymer chosen from the group consisting of a copolymer of tetrafluoroethylene with a perfluoroalkyl vinyl ether, a copolymerization of tetrafluoroethylene and perfluoromethylvinylether and a fluorinated ethylene-propylene resin.

37. A method of making a stent delivery catheter comprising the steps:

providing a catheter shaft, the catheter shaft having a proximal end and a distal end;

loading a stent on the distal end of the catheter shaft;

forming a first stent retaining sleeve of a first material;

extruding melt-processible PTFE onto the first material; and

positioning the first stent retaining sleeve around at least a portion of the stent.

38. The method of claim 37, wherein the PTFE is coextruded with the first

material.

39. The method of claim 38, wherein the first material is a thermoplastic polymer chosen from the group consisting of fluoro copolymers, polyesters, polyamides and polyurethanes.

40. The method of claim 39, wherein the thermoplastic polymer is a fluoro copolymer chosen from the group consisting of a copolymer of tetrafluoroethylene with a perfluoroalkyl vinyl ether, a copolymerization of tetrafluoroethylene and perfluoromethylvinylether and a fluorinated ethylene-propylene resin.

41. The method of claim 37, wherein the first stent retaining sleeve is capable of covering the entire stent and is retractable to release the stent.

42. The method of claim 37, further comprising:

forming a second stent retaining sleeve of the first material;

extruding melt-processible PTFE onto the first material of the second stent retaining sleeve; and

positioning the second stent retaining sleeve around at least a portion of the stent.

43. The method of claim 42, wherein the PTFE is coextruded with the first material to form the first and second stent retaining sleeves.

44. The method of claim 43, wherein the first material is a thermoplastic polymer chosen from the group consisting of fluoro copolymers, polyesters, polyamides and polyurethanes.

45. The method of claim 44, wherein the thermoplastic polymer is a fluoro copolymer chosen from the group consisting of a copolymer of tetrafluoroethylene with a perfluoroalkyl vinyl ether, a copolymerization of tetrafluoroethylene and perfluoromethylvinylether and a fluorinated ethylene-propylene resin.

46. The method of claim 42, wherein the stent has a first end and a second end and the stent retaining sleeves both have first and second ends and wherein the first ends of the stent retaining sleeves are gripped to the catheter shaft and the second ends of the stent retaining sleeves are in contact with the ends of the stent.

47. A method of making a stent delivery catheter comprising the steps:

providing a catheter shaft, the catheter shaft having a proximal end and a distal end and a length;

loading a stent on the distal end of the catheter shaft;

forming a stent retaining sleeve;

positioning the stent retaining sleeve around the distal end of the catheter shaft and at least a portion of the stent;

forming a hypotube;

extruding melt-processible PTFE onto the hypotube; and

attaching the hypotube to the retaining sleeve such that the retaining sleeve may be retracted proximally along the catheter shaft to release to the stent from the proximal end of the catheter shaft.

48. The method of claim 47, wherein the hypotube is metal.

49. The method of claim 47, wherein the hypotube extends along a substantial portion of the length of the catheter shaft.

50. A method of making a medical multi-layered tube comprising the steps of:

extruding melt-processible PTFE onto a first tube.

51. The method of claim 50, wherein the medical tube is a catheter tube.

52. The method of claim 50, wherein the first tube and the melt processible PTFE are coextruded.

53. The method of claim 50, wherein the first tube is made from a thermoplastic polymer chosen from the group consisting of fluoro copolymers, polyesters, polyamides and polyurethanes.

54. The method of claim 53, wherein the thermoplastic polymer is a fluoro copolymer chosen from the group consisting of a copolymer of tetrafluoroethylene with a perfluoroalkyl vinyl ether, a copolymerization of tetrafluoroethylene and perfluoromethylvinylether and a fluorinated ethylene-propylene resin.

55. The method of claim 50, wherein the melt-processible PTFE is extruded onto the inside of the first tube.

56. The method of claim 50, wherein the melt-processible PTFE is extruded onto the outside of the first tube.

57. The method of claim 50, wherein the melt-processible PTFE extruded on both the inside and the outside of the first tube.

58. The method of claim 57, wherein the three layers are co-extruded.